REMARKS/ARGUMENTS

Reconsideration of the application is respectfully requested for the following reasons:

Rejection of Claims 17-21 Under 35 U.S.C. §102(b)

Claims 17-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kim (US 4,999,310).

Applicant respectfully traverses this rejection since Kim fails to disclose every element of the claimed invention. Moreover, Kim actually teaches a divergent subject matter comparing to that of the claimed invention.

Particularly, Kim fails to show a transparent layer having Zn dopants therein on an uppermost layer of a LED substrate, wherein the transparent layer is composed of a semiconductor compound different to that of the uppermost layer. Kim discloses an n-type GaAs single crystal substrate 21 with high concentrated n-type having an n-type GaAlAs junction layer 22, a p-type GaAlAs radiative layer 23 and an n-type current blocking layer 24 as an n-type GaAlAs transparent layer thereon. These compound semiconductor layers are all made of GaAlAs compound which are different to that of the claimed invention. That is, Kim discloses a method including a step of forming an n-type GaAlAs transparent layer on a p-type GaAlAs radiative layer 23 on an n-type GaAs single crystal substrate 21 by a conventional liquid phase epitaxy. In the conventional LPE process, there are many shortcomings and limits. One of the serious

problems of the conventional LPE process is a melt back effect occurring in the LED substrate during the growing of the transparent layer onto the LED substrate. The above-noted "melt back" will crack the construction of the LED device. Moreover, the uppermost layer of the LED substrate, where the transparent layer is grown, is limited. For example, while growing a GaP/GaAlAs onto the LED substrate, the uppermost layer of the LED substrate must be a thick layer of GaP/GaAlAs. Therefore, Kim only shows a conventional LED structure of an n-type GaAlAs transparent layer on a p-type GaAlAs radiative uppermost layer 23 of an n-type GaAs single crystal substrate 21 contrary to the claimed invention. Therefore, Kim actually fails to disclose every element of the claimed invention and teaches a divergent subject matter comparing to that of the claimed invention. According to MPEP § 2131, To Anticipate A Claim, The Reference Must Teach Every Element Of The Claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Kim actually fails to render the claimed invention unpatentable.

Conclusion

In light of the above remarks to the claims, Applicant contends that Claims 17-25 are patentable thereover. The claims are in condition for favorable consideration and Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

This Amendment was prepared by Applicant, and is being submitted without substantive change by the undersigned Attorney.

Respectfully submitted,

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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office, Art Unit #2822, at (703) 872–9306, on the date shown below.

For: ROSENBERG, KLEIN & LEE

DAVID I. KLEIN

6/24/2005
Date